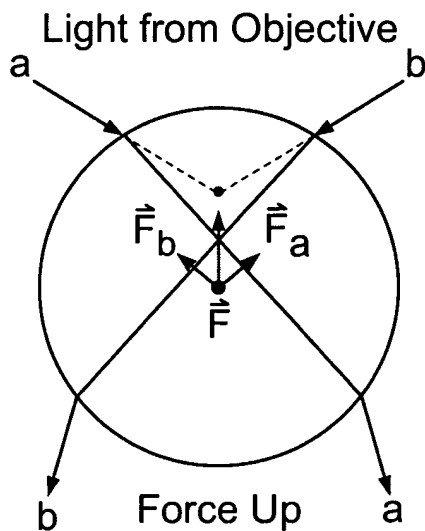
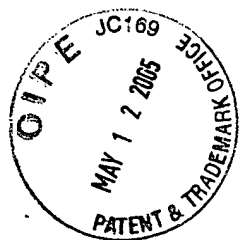
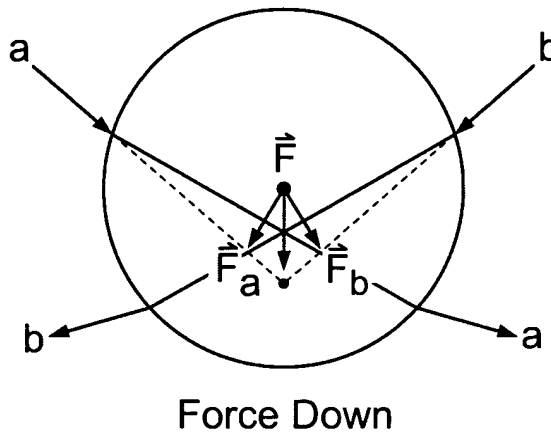


FIG. 1
(Prior Art)



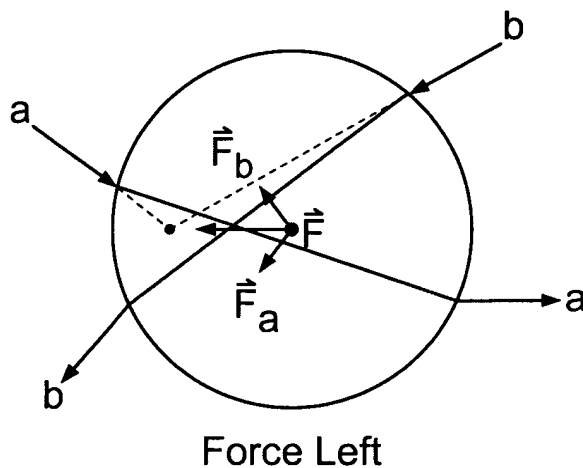
• = Center of Sphere
 • = Source Focus
 \vec{F} = Gradient Force

FIG. 2A
 (Prior Art)



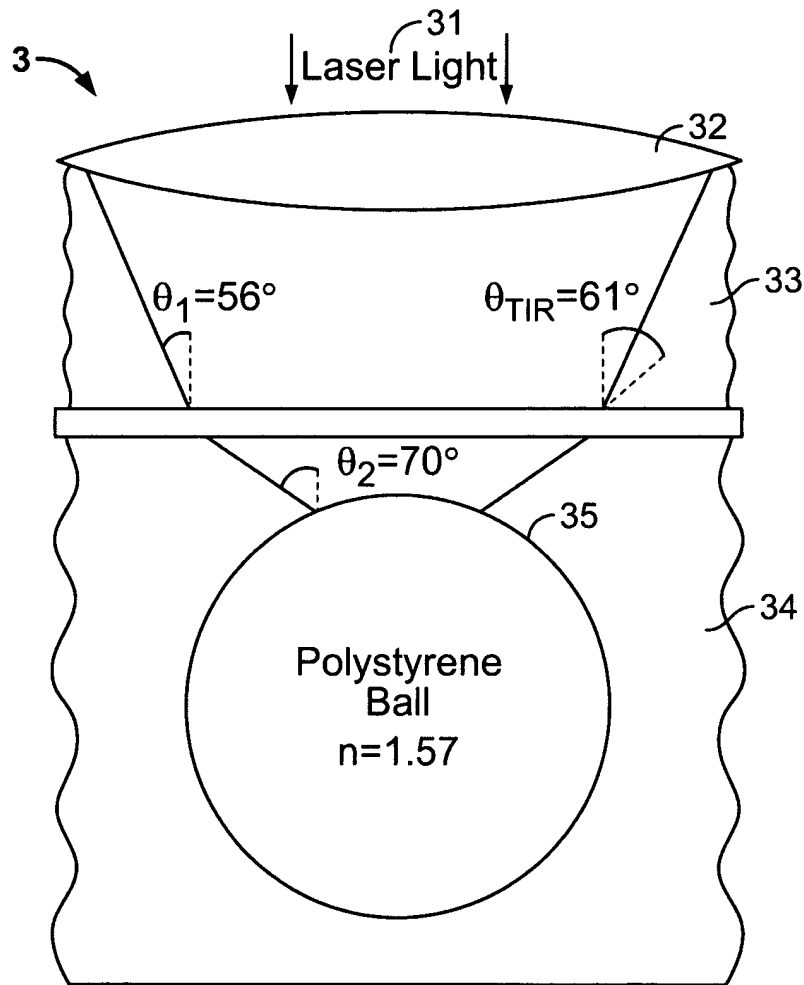
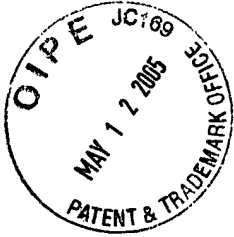
• = Center of Sphere
 • = Source Focus
 \vec{F} = Gradient Force

FIG. 2B
 (Prior Art)



• = Center of Sphere
 • = Source Focus
 \vec{F} = Gradient Force

FIG. 2C
 (Prior Art)



n = Index of Refraction
N.A. = Numerical Aperture
TIR = Total Internal Reflection

FIG. 3
(Prior Art)

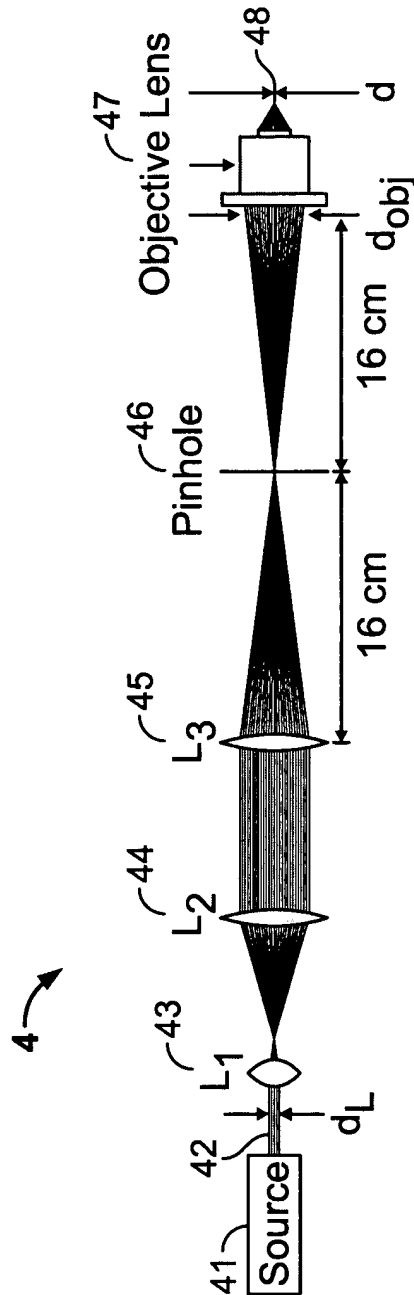
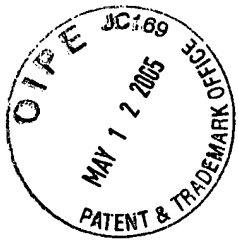


FIG. 4
(Prior Art)

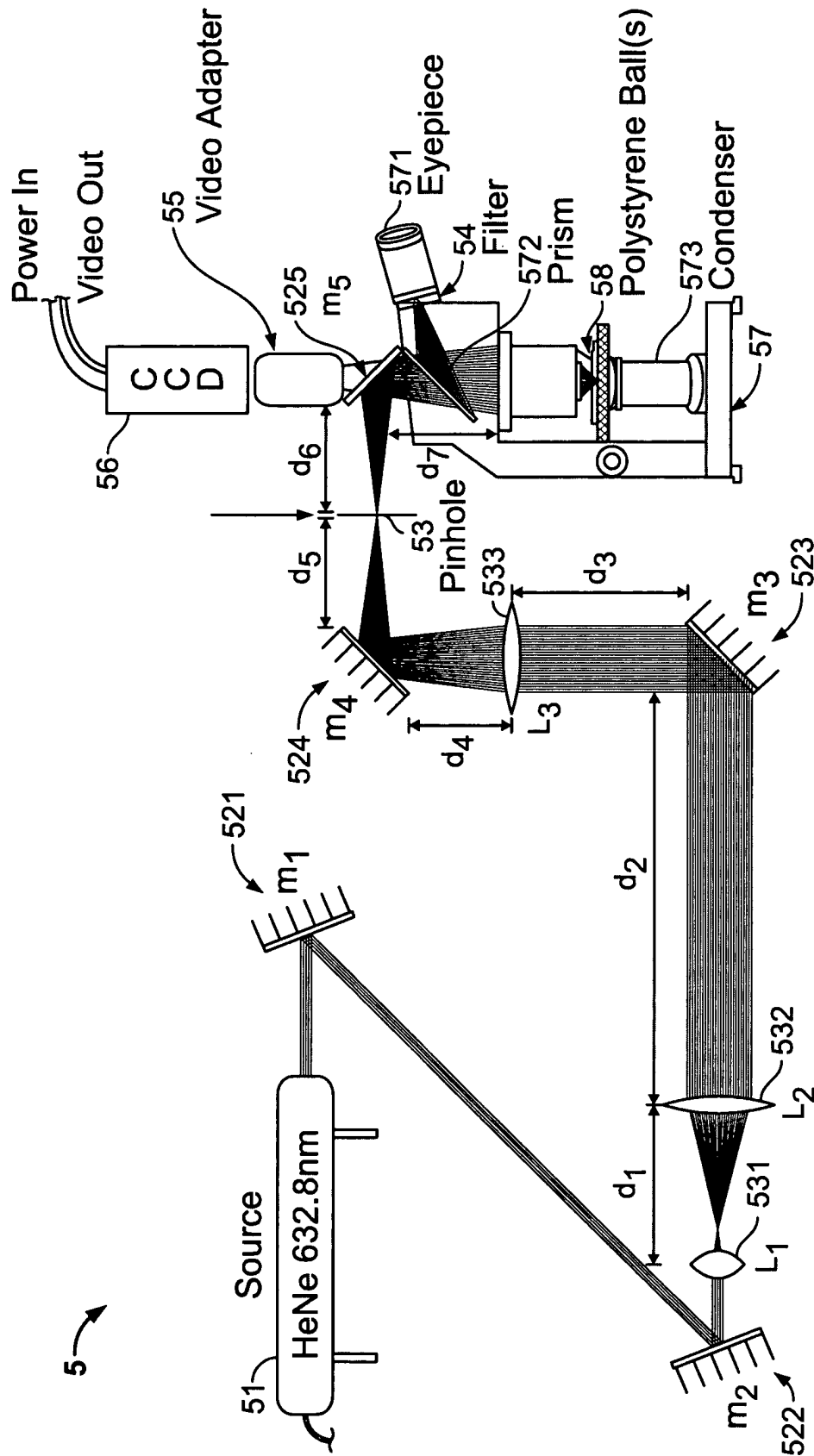


FIG. 5
(Prior Art)

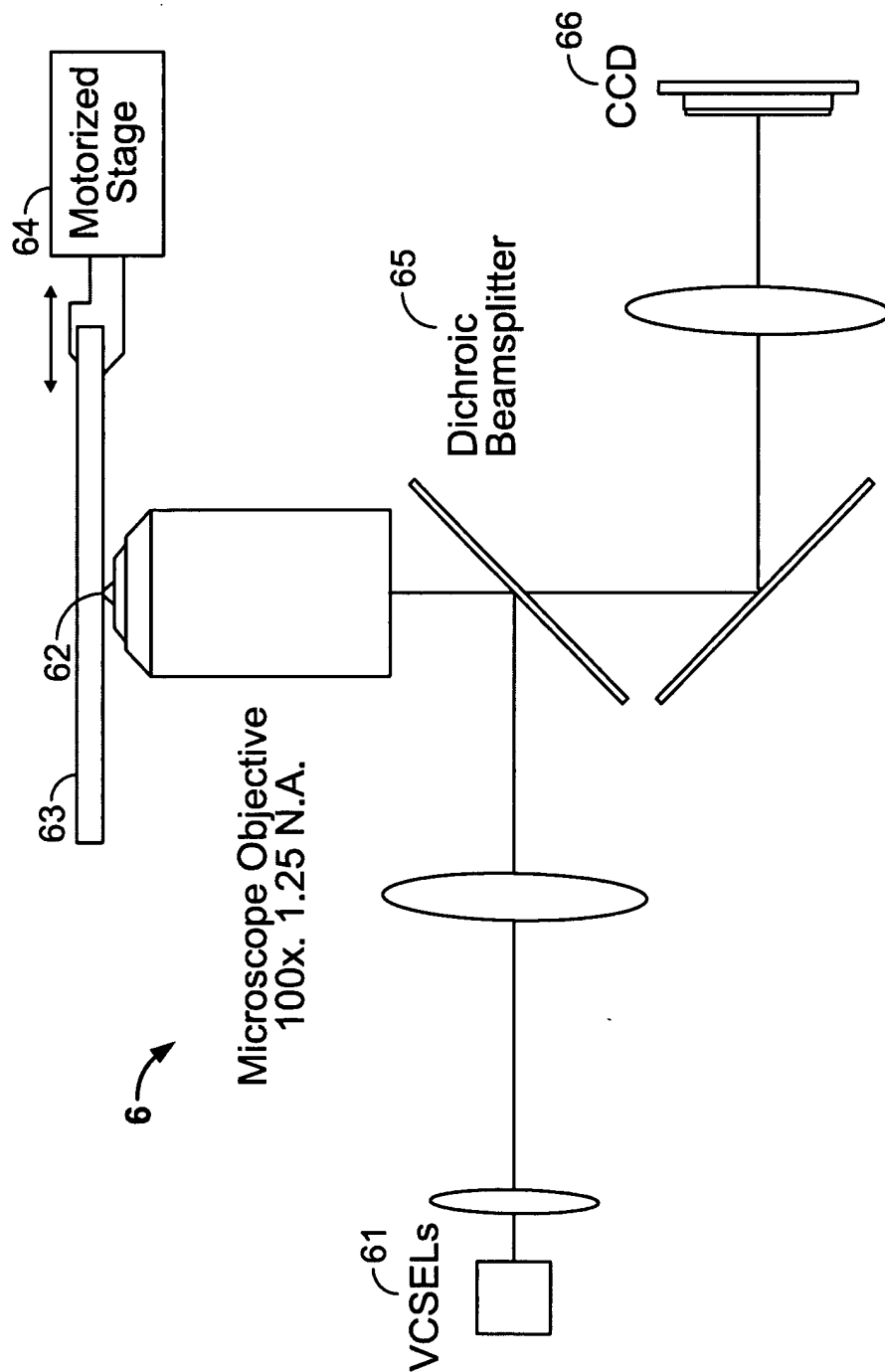
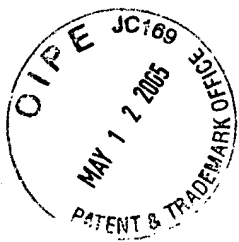


FIG. 6

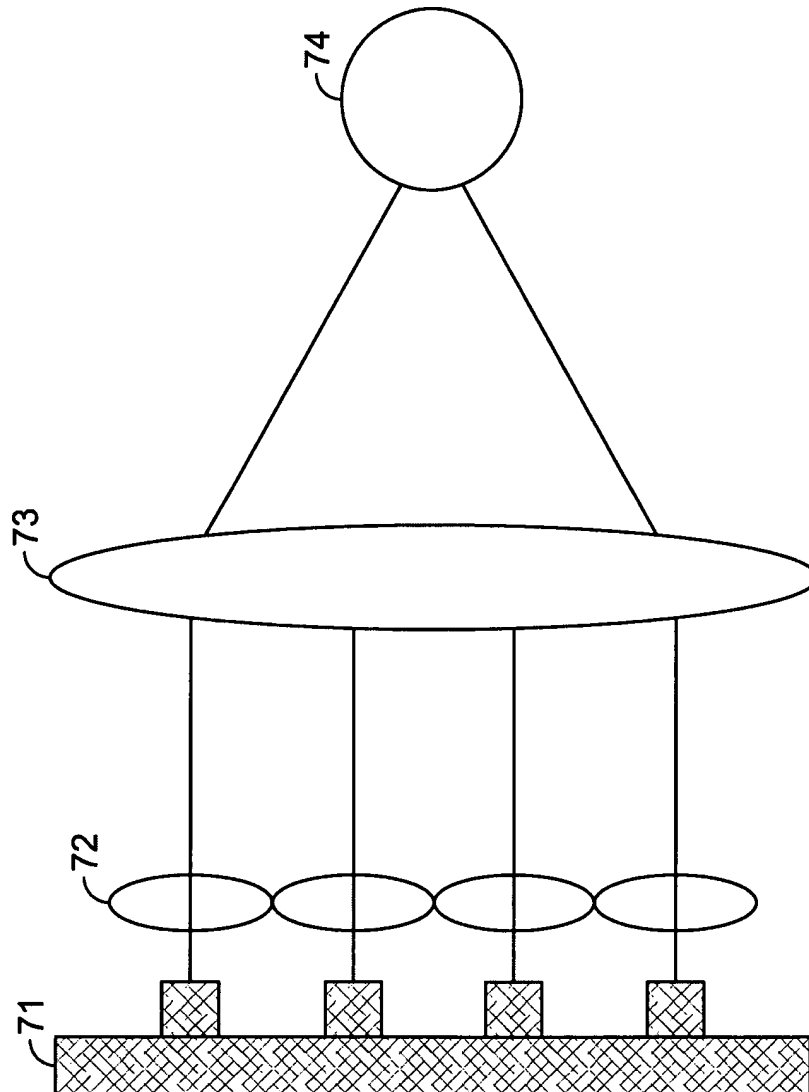
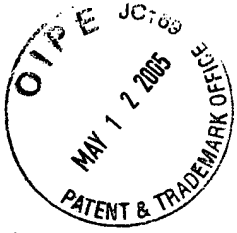


FIG. 7

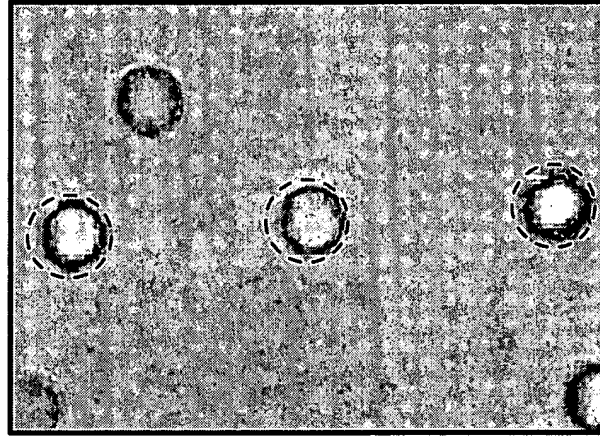
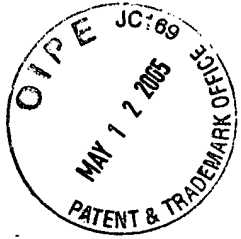


FIG. 8C

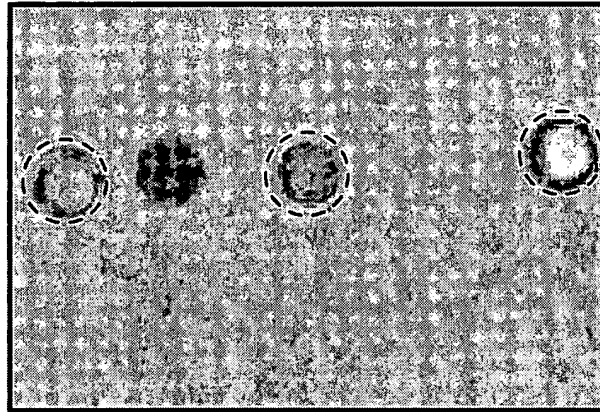


FIG. 8B

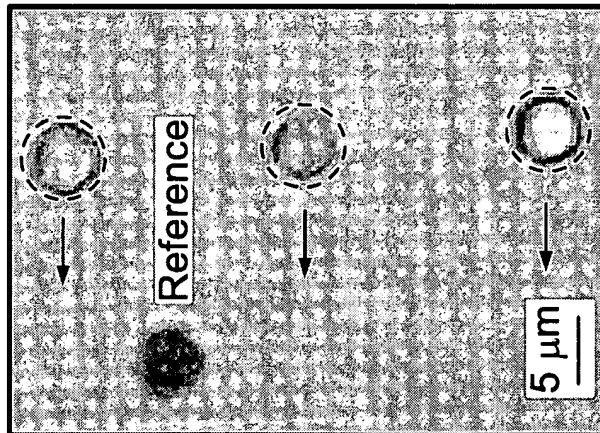


FIG. 8A

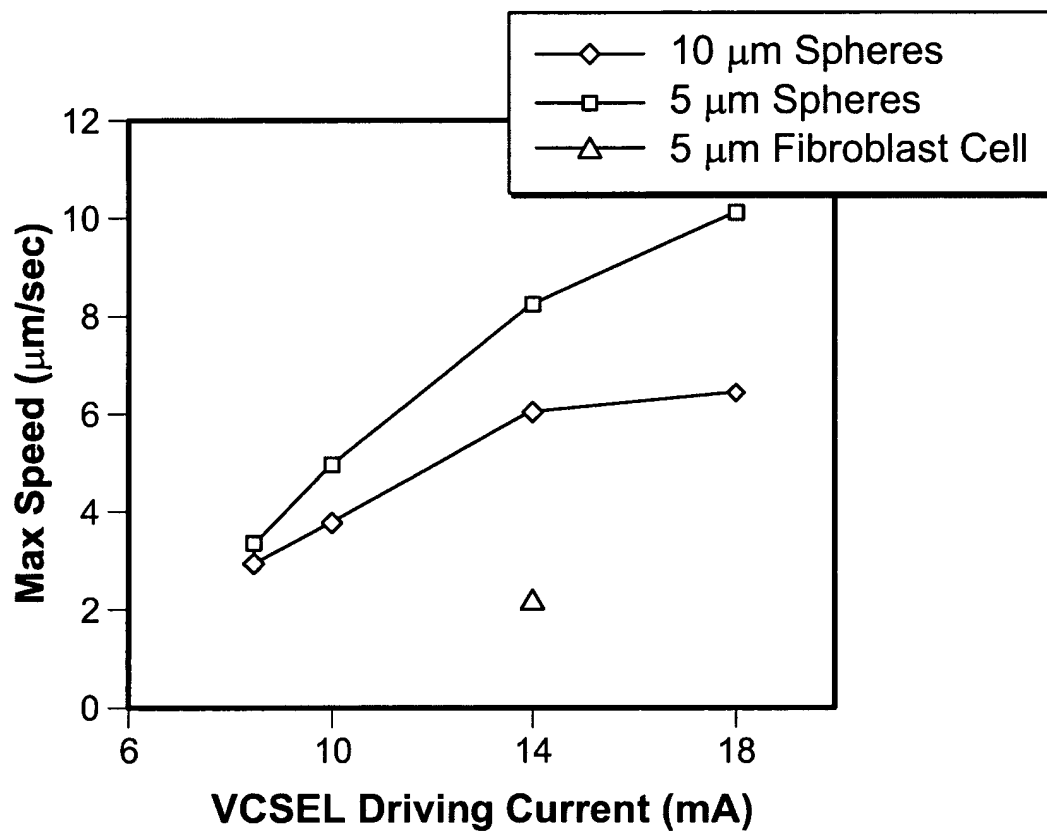
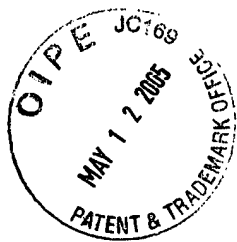


FIG. 9

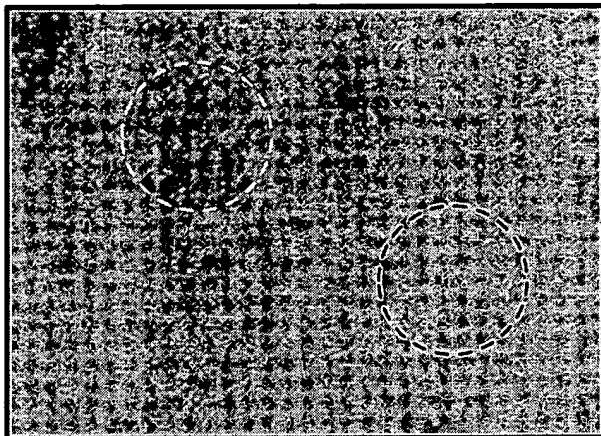
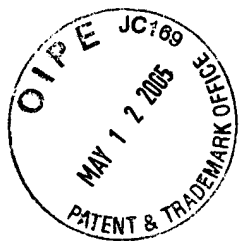


FIG. 10C

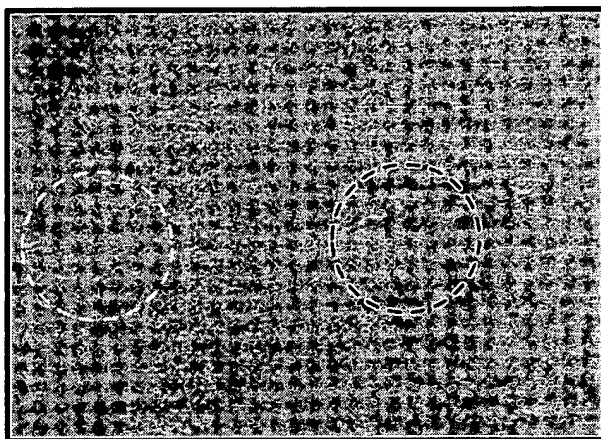


FIG. 10B

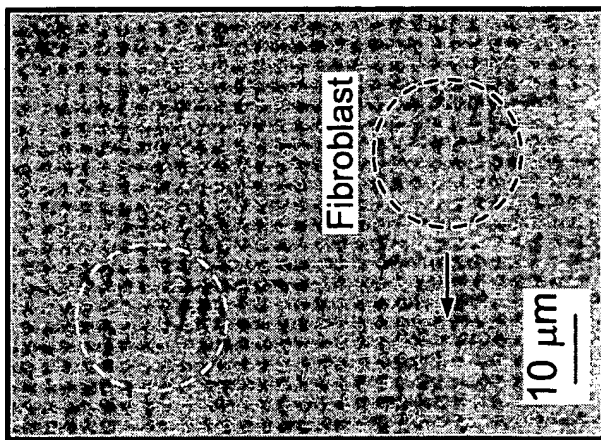


FIG. 10A

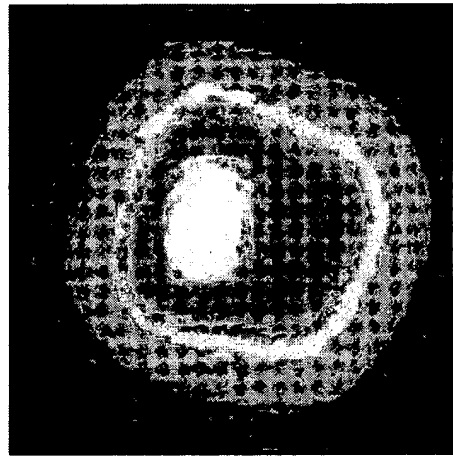
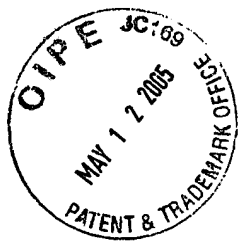


FIG. 11A

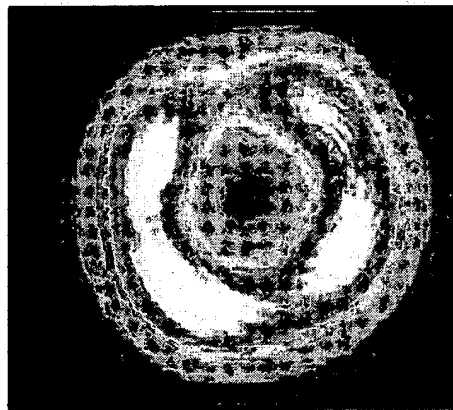


FIG. 11B

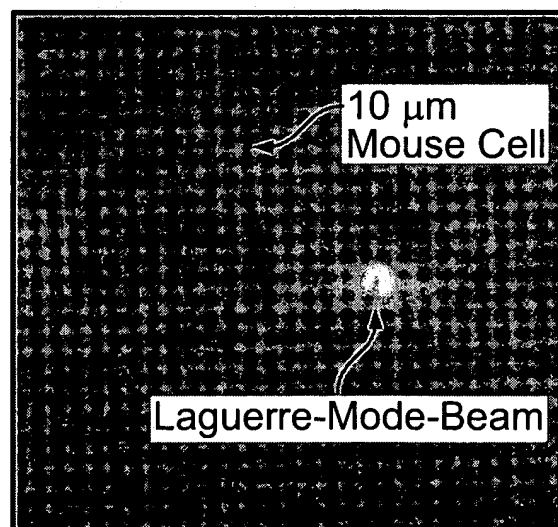
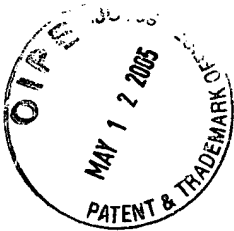


FIG. 12



Measurement of Trapping Force on 10 μm Sphere as a Function of Driving Current

Current (mA)	Power (mW)	Power at M.O. (mW)	Speed ($\mu\text{m}/\text{sec}$)	Force (pN)	Mode
5.85	0.2	Insufficient Power to Trap			
8.5	1.58	1.33	3	0.28	
10	1.76	1.3	3.75	0.35	
14	3.52	2.68	6	0.57	
18	4.4	2.46	6.4	0.6	

FIG. 13

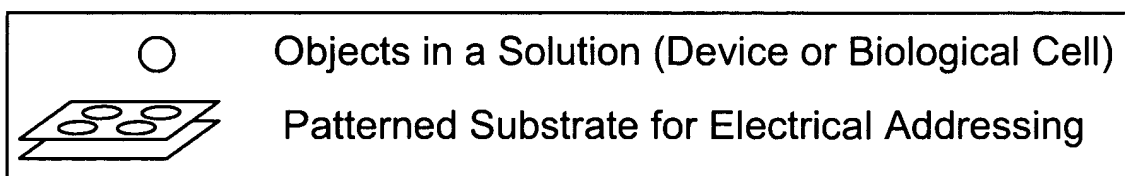
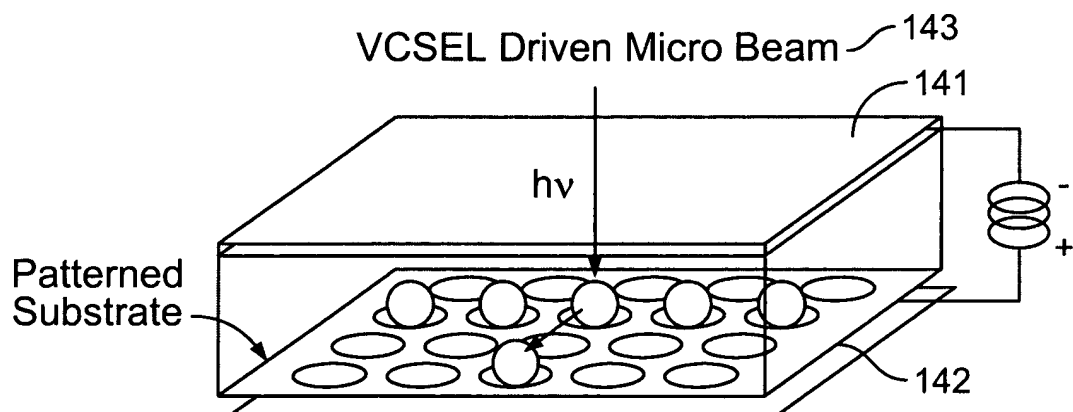
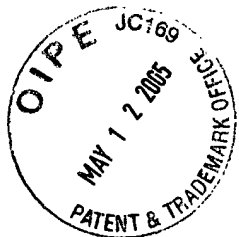


FIG. 14